

Undescribed Species of Crane-Flies from the Western United States and Canada (Dipt.: Tipulidae). Part II.

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The preceding part under this title was published in 1943 (Ent. News, 54: 45-51). At this time I wish to characterize a few further species that have been discovered in extensive series of these flies from Idaho, Washington and California. Except where indicated to the contrary, the types of the novelties are preserved in my personal collection of these flies.

Limonia (Dicranomyia) linsdalei n.sp.

Most similar to *L. (D.) libertoides* (Alexander) and *L. (D.) stigmata* (Doane), differing in the slightly patterned wings and in the structure of the male hypopygium, especially the very peculiar lobe of the basistyle. The general appearance of the paratype is quite different from that of the type, but from the structure of the male hypopygium the two flies are conspecific. The species is named in honor of the collector of the holotype, Dr. Jean M. Linsdale, of the Frances Simes Hastings Natural History Reservation, Monterey, California.

General coloration gray, the praescutum with a darker brown median stripe, most evident in front; antennae black throughout; halteres short, the apex of knob darkened; wings whitish, the prearcular field even clearer white; stigma brown; a very restricted brown seaming along cord, outer end of cell *1st M*₂, *Cu* and *1st A*; vein *Sc*₁ a little longer than *R*₂; basal section of *R*₄₊₅ long, approximately two-thirds the length of *Rs*; male hypopygium with the ventromesal lobe of basistyle at extreme cephalic end of sclerite, narrow, before apex constricted into a pale bulbous tip.

Length, ♂, about 5.5-7 mm.; wing 6-8 mm.; ♀, about 6 mm.; wing 6.5 mm.

Rostrum and palpi black. Antennae black throughout; flagellar segments oval; longest verticils somewhat shorter than the

segments. Head gray, the central portion of vertex extensively infuscated; anterior vertex broad, nearly three times the diameter of scape.

Pronotum dark brownish gray. Mesonotum dark gray, the praescutum more infuscated medially to produce a more or less distinct stripe, most evident in front; lateral stripes lacking; scutellum a little paler; lateral borders of mediotergite and ventral edge of pleurotergite a little darker. Pleura dark gray; dorsopleural membrane uniformly darkened. Halteres short; apex of knob darkened. Legs with coxae dark brown, heavily gray pruinose; trochanters obscure yellow; femora light brown, scarcely more darkened near the tips; tibiae and basitarsi pale brown, their tips very narrowly darkened; outer tarsal segments brownish black. Wings with a whitish ground, the prearcular field even clearer white; stigma brown; a very restricted brown pattern, including narrow seams at origin of *Rs*, along cord and outer end of cell *1st M*₂, and as seams along veins *Cu* and *2nd A*; cell *Sc* chiefly infuscated, the outer end paler; veins brown; bullate areas along cord and outer end of cell *1st M*₂ conspicuous. In the paratype, the wing pattern is much less conspicuous. Venation: *Sc*₁ ending opposite or immediately beyond the origin of *Rs*, *Sc*₂ a short distance from its tip so *Sc*₁ alone is a little longer than *R*₂; *Rs* weakly angulated and very slightly spurred near origin; *R*₂ in transverse alignment with the short free tip of *Sc*₂; basal section of *R*₄₊₅ long, from three-fifths to two-thirds *Rs*; cell *1st M*₂ about as long as vein *M*₄ beyond it; *m-cu* at fork of *M*; vein *2nd A* nearly straight until near its outer end.

Abdomen dark reddish brown, the lateral tergal borders more darkened; hypopygium darkened, the tergite and ventral dististyle paler; basal sternites pale, their caudal borders more darkened; outer segments more darkened. In female, abdomen more uniform dark brownish gray. Ovipositor with cerci elongate, straight, their tips acute. Male hypopygium with the tergite transverse but relatively long; posterior margin gently emarginate, the exact border poorly defined, delimited by a concentration of major setae on the lobes; median area of emargina-

tion with two setae; remainder of disk with delicate setulae only. Basistyle with the ventromesal lobe at extreme cephalic end of style, unusually slender, darkened at base, before apex narrowed and constricted into an oval bulbous portion with scattered setae of moderate length. Dorsal dististyle a long, gently curved, darkened rod that narrows very gradually to a long acute point. Ventral dististyle with the body small, sub-circular in outline, its area less than that of the basistyle; rostral prolongation darkened, appearing as a long, gently curved point; rostral spines two, placed close together at about one-third the length of prolongation, arising from individual tubercles; spines only a little more than one-third the length of prolongation. Gonapophyses with mesal-apical lobe elongate, nearly straight, the darkened tips a trifle outcurved.

Holotype: ♀, Frances Simes Hastings Natural History Reservation, Monterey, CALIFORNIA, April 6, 1938 (Linsdale). *Allotopotype*: a broken ♂, March 13, 1938. *Paratype*: ♂, Avalon, Catalina Island, California, March 19 (Cockerell). Type returned to Dr. Linsdale.

Rhabdomastix (Sacandaga) trichophora n.sp.

Closest to *R. (S.) flava* (Alexander), of northeastern North America, and *R. (S.) coloradensis* (Alexander), of the central and southern Rocky Mountains. It differs in the conspicuously dilated wings of the male, with the macrotrichia of the veins unusually abundant, and in the venation, as the considerably longer *Rs*.

General coloration yellow, the mesonotum pale reddish brown; head above obscure yellow, the vertex with a brown spot; halteres pale yellow throughout; legs with the femora and tibiae yellow, the tips narrowly infuscated; wings (male) broad, especially opposite cell *1st A*, pale yellow, without pattern; macrotrichia of veins beyond cord unusually numerous, including a series of about twelve on vein *R*₄, on both surfaces of vein; *Sc*₁ more than one-fourth as long as *Rs*.

Length, ♂, about 5.8 mm.; wing 6.8 mm.; antenna about 1.3 mm.

Rostrum brownish yellow; palpi brown. Antennae of moderate length; scape and base of pedicel yellow, remainder of organ black; two basal flagellar segments short-cylindrical and more or less fused, the succeeding segments becoming more elongate, especially the outer ones; verticils of outer segments long and conspicuous, exceeding the segments in length. Head broad, obscure yellow, the center of vertex narrowly but distinctly darkened; anterior vertex broad.

Pronotum light yellow, very vaguely darkened sublaterally. Mesonotal praescutum pale reddish brown, with a somewhat darker median stripe, the surface very sparsely pruinose; humeral and lateral portions light yellow; posterior sclerites of notum pale reddish brown. Pleura reddish brown, the dorso-pleural region light yellow. Halteres pale yellow. Legs with the coxae reddish yellow, the fore pair a trifle darker; trochanters yellow; femora and tibiae yellow, the tips narrowly infuscated; tarsi yellow, the outer segments infuscated. Wings (male) broad, especially opposite cell *1st A*; pale yellow, the costal border a trifle more saturated; no vestige of a stigma; veins yellow. Veins beyond cord with conspicuous macrotrichia, as follows: R_4 about twelve, on both surfaces, involving all but extreme base of vein; R_5 a long complete series the entire length of outer section, on both surfaces, and exceeding sixty in number; veins M_{1+2} , M_3 and M_4 with rows of trichia except on their restricted basal portions; a few scattered trichia on distal section of Cu_1 . Venation: Sc long, Sc_1 ending about opposite four-fifths Rs , Sc_2 far from the tip of Sc_1 , the latter more than one-fourth as long as Rs ; vein R_3 suberect; R_1 of moderate length, cell R_3 at margin subequal to cell R_4 ; Rs unusually long, about twice R_{2+3+4} ; basal section of M_3 long, much exceeding the basal section of M_{1+2} ; both sections of M_{3+4} subequal.

Abdominal tergites yellow, weakly darkened medially; a weak darker brown subterminal ring; sternites clearer yellow. Male hypopygium with the outer dististyle slightly narrower than in *coloradensis*.

Holotype: ♂, Mount Rainier, WASHINGTON, altitude 2,900 feet, July 28, 1940 (H. & M. Townes).

Cryptolabis (Cryptolabis) pachyphallus n.sp.

Entirely different from the only other northwestern Nearctic species so far described, *C. (C.) bisinuata* Doane. Readily distinguished by the structure of the male hypopygium, especially the shape of the retracted dististyle.

General coloration blackened, the postnotum and thoracic pleura variegated with yellow; legs infuscated, the femoral bases obscure yellow; wings subhyaline, restrictedly patterned with brown; male hypopygium with the dististyle retracted, its apex not reaching the posterior level of the sternite, the outer margin with a lateral lobe or flange.

Length, ♂, about 3–3.2 mm.; wing 4–4.1 mm.; ♀, about 3.3–3.6 mm.; wing 4.5–5 mm.

Rostrum and palpi black. Antennae short, dark brown to black; flagellar segments oval. Head obscure yellow, the vertex extensively darkened medially.

Pronotum darkened medially, paler on sides; pretergites yellow. Mesonotal praescutum almost uniformly blackened, sparsely pruinose, the very restricted humeral region and lateral margin more yellowish; posterior sclerites of notum blackened, with obscure yellow areas on outer posterior portion of each scutal lobe and a common spot on dorsal pleurotergite and outer lateral portion of mediotergite; in cases, the entire thorax more uniformly blackened. Pleura blackened, gray pruinose; dorsal sternopleurite narrowly obscure yellow to produce a narrow longitudinal stripe. Halteres relatively long, stem obscure yellow, the knob somewhat clearer yellow. Legs with the coxae brown, the trochanters a little paler; femora obscure yellow basally, the very broad apices gradually darkened, on the fore pair very extensive, including more than the distal half; on posterior legs more restricted; tibiae light brown, the tips narrowly darker; tarsi brownish black. Wings subhyaline, sparsely patterned with brown, including ill-defined seams on *Cu*, anterior cord and certain veins beyond cord, especially *R*₅; stigma and axillary region brown; prearcular and costal fields more whitened; veins brown, pale in the light-colored areas. Macrotrichia in distal portions of cells *R*₃ to *M*₃, inclusive, occupying

the central portions of the cells. Venation: *Rs* strongly sinuous, oblique, to subperpendicular; *r-m* connecting with *Rs* shortly before its fork; *m-cu* nearly its own length beyond the fork of *M*.

Abdomen brownish black, the distal ends of the genitalia of both sexes restrictedly more reddish brown. Male hypopygium with the dististyle retracted, its apex not reaching the posterior level of the sternite; inner or mesal portion of basistyle heavily sclerotized, produced laterad into a strong point. Dististyle a flattened blade that gradually narrows to the acute tip, its surface with numerous scattered setae; on outer margin of style with a lateral lobe or flange. Lateral and submedian hypopygial lobes conspicuously hairy, the former rounded-oval, with unusually long setae; submedian lobes oval, with more abundant but shorter bristles. Aedeagus moderately stout.

Holotype: ♂, Riggins, IDAHO, August 10, 1938 (J. W. Zukel).
Allotopotype: ♀. *Paratopotypes*: ♂♂ ♀.

The Neon-sign Dance of the Water-boatman, *Tricocorixa verticalis* Fieb. (Hemiptera).*†

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I was attracted to a mass of thousands of these water-boatmen in a very active dance before a neon sign of a drug store at Tiptonville, Tennessee, near Reelsfoot Lake, on the night of July 12, 1937. The bottom of the sign was about ten feet from the ground, and a "ball" of these insects—I had better say a "football" because that was the size and shape of the mass—was in constant motion, rapidly going in and out of the invisible boundaries of their little world in front of the lighted red and blue letters.

* Dr. J. F. Abbott, in Hemiptera of Connecticut (State Geol. and Nat. Hist. Survey, Bull. 34: 386, 1923) says Corixids are to be found in shallow brooks, ponds, and puddles; they are as a rule strong fliers and often migrate in great swarms from pond to pond. At such times they not infrequently come to the light.

† Identified by H. S. Barber.